CBT - Group II Central Offices
Entrance Facility Installation and Space Direct Cost Disallowance

(a) Function	(b) Rate Element	(c) Date of Data Filing	(d) Per Unit Cost	(e) Unit of Measure	(f) # of Units	(g) Recurring Cost (d)*(f)	(h) Non-Recurring Cost (d)*(f)	(i) Amortized Non-Recurring Cost	(j) % of Total Cost (g)/(i8) or (h)/(i8)	(k) Monthly Disallowance (j)*(j10)	(l) PV of Monthly Disallowance	(m) Disallowance Per Unit (k)/(f)	(n) Allowable Per Unit Cost (d)-(m)
1. Entrance Facility Space-rec	Riser-Group II	4/26/94	$15.03	per ft	250	$3,767.50			99.52%	$3,493.93	$3,493.93	$13.98	$1.05
2. Entrance Facility Space-rec	Conduit/Innerduct-Group II	4/26/94	$0.12	per duct ft	150	$18.00			0.48%	$16.74	$16.74	$0.11	$0.01
3.													
4.													
5.													
6.													
7. Total (1) + (2)						$3,775.50	$0.00	$0.00	100.00%	$3,510.67			
8. Total Direct Cost per Month (g7) + (i7)								$3,775.50					
9. Avg for LECs that Install the Cable								$264.83					
10. Total Disallowance per Month (i8)-(i9)								$3,510.67					

CBT - Group III Central Offices
Entrance Facility Installation and Space Direct Cost Disallowance

(a) Function	(b) Rate Element	(c) Date of Data Filing	(d) Per Unit Cost	(e) Unit of Measure	(f) # of Units	(g) Recurring Cost (d)*(f)	(h) Non-Recurring Cost (d)*(f)	(i) Amortized Non-Recurring Cost	(j) % of Total Cost (g)/(i8) or (i)/(i8)	(k) Monthly Disallowance (j)*(i10)	(l) PV of Monthly Disallowance	(m) Disallowance Per Unit (l)/(f)	(n) Allowable Per Unit Cost (d)-(m)
1. Entrance Facility Space-rec	Riser-Group III	4/26/94	$15.03	per ft	150	$2,254.50			98.30%	$1,994.17	$1,994.17	$13.29	$1.74
2. Entrance Facility Space-rec	Conduit/Innerduct-Group III	4/26/94	$0.12	per duct ft	325	$39.00			1.70%	$34.50	$34.50	$0.11	$0.01
3.													
4.													
5.													
6.													
7. Total (1) + (2)						$2,293.50	$0.00	$0.00	100.00%	$2,028.67			
8. Total Direct Cost per Month (g7) + (i7)								$2,293.50					
9. Avg for LECs that Install the Cable								$264.83					
10. Total Disallowance per Month (i8)-(i9)								$2,028.67					

Appendix D

LECs' Comparable DS1 and DS3 Service Overhead Loading Factors

LECs' Comparable DS1 and DS3 Service
Lowest Overhead Loading Factors

Local Exchange Carrier	DS1 Overhead Factor (a)	DS3 Overhead Factor (b)
Ameritech		
Illinois	1.18	1.01
Indiana	1.18	1.00
Michigan	1.18	1.00
Ohio	1.18	1.25
Wisconsin	1.18	1.21
Bell Atlantic	1.40	1.23
BellSouth	1.29	1.30
Nynex–New York	2.13	1.32
Nynex–Massachusetts	3.17	1.00
Pacific Bell	1.45	1.27
Nevada Bell	1.36	2.17
Southwestern		
U S West	1.01	1.33
Sprint\Central–Illinois	4.18	2.11
Cincinnati		
GTOC–TX	1.35	1.46
Lincoln	1.32	1.40
Rochester	1.19	1.03
SNET	2.78	2.46

Appendix E

Pleading Summaries

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A. RATE STRUCTURE

1. Nonrecurring Charges for Recurring Costs

1. Direct Cases. Ameritech, BellSouth, GTE, and US West develop nonrecurring rates based on the present value of recurring costs.[1] The other LECs develop nonrecurring rates to recover nonrecurring costs and recurring rates to recover recurring costs. These LECs do not impose nonrecurring rates that recover more than the original value of the assets that comprise the initial capital outlay or the investment used to provide a particular physical collocation service function.[2] Ameritech contends that its calculation of the present value of its central office build out includes costs for income taxes, maintenance expense, ad valorem taxes, and gross receipts taxes, as well as the cost of money and depreciation.[3] Additionally, Ameritech claims that this rate element includes discounted costs for security checks and issuance of identification cards to employees of the interconnectors.[4] Ameritech also states that it will continue to incur these costs over the life of the physical collocation service, and that the inclusion of such costs in the present value calculation is appropriate.[5] Ameritech uses a discount rate of 10.9 percent,[6] and computes the present value over seven years, which is an estimate of the average length of time an interconnector would occupy space in a central office.[7] Ameritech contends that the present value of these costs, which is $29,013.02, is less than the capital outlay of $33,604.52. Ameritech explains that the rate, $40,212.53, is greater than the capital outlay because of the overhead loading factor assigned to this rate element.[8] Nevada Bell states that it does not include the present discounted value of depreciation or the cost of money in its nonrecurring charge.[9] Nevada Bell states that it also does not include the discounted value of other recurring expenses, such as maintenance and taxes.[10]

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[1] Ameritech Direct Case at 12; BellSouth Direct Case at 16; GTE Direct Case at 11; US West Direct Case at 14.

[2] *See, e.g.,* NYNEX Direct Case at 18; Pacific Direct Case at 37; SNET Direct Case at 4; SWB Direct Case at 10; and United Direct Case at 6.

[3] Ameritech Direct Case at 12.

[4] *Id.*

[5] *Id.*

[6] 10.9 percent is Ameritech's estimate of its weighted average cost of capital.

[7] *Id.*

[8] *Id.* at 12-13.

[9] Nevada Direct Case at 6.

[10] *Id.*

2. In their direct cases, GTE and BellSouth describe the methodology used in their original tariff filings. GTE states that it included maintenance, in addition to depreciation, cost of money, and federal and state income taxes in developing the present value calculation for its building modification charge.[11] According to GTE, the value of the property, and therefore property taxes, will increase due to physical collocation. GTE explains that it uses a discount rate of 11.25 percent and a time period of 20 years, which it claims is the useful life of the investment.[12] BellSouth states that it computes a nonrecurring charge for one investment related rate element -- the space construction charge -- per 100 square foot module. In computing this nonrecurring charge, BellSouth discounts its depreciation expense, cost of money, and income tax expense over the life of the investment. BellSouth's discount rate is equal to its estimate of its overall cost of capital, or 13.34 percent, and the amortization period is 44.7 years, BellSouth's estimate of the useful life of the investment.[13]

3. US West contends that it recovers all of the construction costs of the physical collocation offering up front because there may be no additional requests for physical collocation service when an interconnector leaves.[14] US West further claims that none of the recurring rates are structured to recover enclosure construction costs, and no present discounted value of future maintenance expenses is included in the nonrecurring construction charge.[15] Bell Atlantic, CBT, and Rochester do not propose any nonrecurring charges for recurring costs in their tariffs, and Lincoln does not address this issue in its direct case.[16]

4. Oppositions. ALTS argues that GTE adds additional costs to construction on the unsubstantiated theory that the additions will increase the value of the building and consequently increase its property taxes.[17] Sprint argues that Ameritech, BellSouth, and US West develop nonrecurring charges based on discounted taxes, maintenance, and other expenses, resulting in excessive nonrecurring charges.[18] Sprint further notes that US West computes nonrecurring charges for the entrance enclosure, conduit, core drill, fiber cable splicing, fiber placement, riser, power cable installation, and virtual fiber optic cable rate elements based on the discounted value of recurring costs associated with capital outlay, such

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[11] GTE Direct Case at 11.

[12] *Id.*

[13] BellSouth Direct Case, Exhibit 4 at 1-2.

[14] US West Direct Case at 66.

[15] *Id.* at 67.

[16] Bell Atlantic Direct Case at 19; CBT Direct Case, Exhibit A at 7; Rochester Direct Case at 4.

[17] ALTS Opposition at 25.

[18] Sprint Opposition, Appendix A at 7-9.

as taxes, administrative and other expenses.[19] Sprint claims that the recovery of recurring expenses associated with an investment outlay, other than depreciation and the cost of money, through a nonrecurring charge will result in a mismatch of revenues and expenses and should not be allowed.[20]

5. Rebuttals. In reply, GTE and US West contend that nonrecurring charges are appropriate for recurring cost recovery because of the large amount of initial investment required by the LECs and the lack of alternative uses for physical collocation equipment.[21] Ameritech claims that the inclusion of expenses such as maintenance in nonrecurring charges is appropriate because the company will continue to incur these expenses over the life of the service, even if the service is discontinued by the original interconnector.[22] BellSouth contends that it would incur a revenue shortfall if the income tax expense were excluded from the calculation of the nonrecurring charge.[23] BellSouth argues that the discounted amounts reflect the total costs that BellSouth would incur as a result of constructing the 100 square foot collocation cage, and it is reasonable to recover these costs as a nonrecurring charge.[24]

2. Nonrecurring Charges for Equipment

6. Direct Cases. SWB, NYNEX, GTE, and US West all assess a nonrecurring charge for equipment. SWB contends that it does not know how long the interconnector will remain a customer in a specific wire center, and that the equipment used to provision physical collocation is not reusable by SWB.[25] Therefore, SWB states that it is reasonable to assess a nonrecurring charge for equipment dedicated solely to a specific interconnector.[26] According to SWB, recurring charges for all start up costs could mask the true costs of entry into the expanded interconnection market.[27] NYNEX contends that it includes the cost of racking and support structures in the nonrecurring charge for the multiplexing node, and that these

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19 *Id.*

20 *Id.*, Appendix A at 8.

21 GTE Rebuttal at 6; US West Rebuttal at 28-29.

22 Ameritech Rebuttal at 3.

23 BellSouth Rebuttal at 3.

24 *Id.* at 4.

25 SWB Direct Case at 24.

26 *Id.*

27 *Id.* at 24-25.

structures are installed at the same time the interconnector's cage is constructed.[28] NYNEX explains that because the equipment is dedicated to the interconnector, the costs of equipment necessary for each cage are reasonably included in the multiplexing node nonrecurring charge.[29]

7. GTE explains that the only equipment costs recovered in nonrecurring charges are those incurred to provide the physical separation within the central office.[30] According to GTE, if the costs of the equipment are to be recovered in a monthly recurring charge, GTE would have to forecast the period of time the equipment would be in service, which would be extremely speculative.[31] US West claims that the equipment is dedicated to the interconnector for its full life, and in order to ensure that all costs associated with its month-to-month physical collocation service are recovered, it treats the equipment dedicated to the interconnector as a nonreusable investment.[32] US West contends that it has no historical information on which to base a forecast of how long an interconnector will occupy space within a central office, and no guarantee as to the length of the occupancy by the interconnector.[33] Nevada, Pacific, Rochester, SNET, and United have not tariffed a nonrecurring charge for equipment,[34] and Ameritech, CBT, Bell Atlantic, and Lincoln do not address this issue in their direct cases.

8. Oppositions. ALTS maintains that SWB's nonrecurring charges for equipment are a barrier to entry.[35] TDL asserts that any equipment for which the interconnector paid a nonrecurring charge should be considered the interconnector's property so that it may reuse the equipment if it relocates.[36]

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[28] NYNEX Direct Case, Appendix B at 4.

[29] *Id.*

[30] GTE Direct Case at 30.

[31] *Id.*

[32] US West Direct Case at 70.

[33] *Id.*

[34] Nevada Direct Case at 11; Pacific Direct Case at 55; Rochester Direct Case at 4; SNET Direct Case at 10; United Direct Case at 14. BellSouth notes that, with respect to its virtual collocation tariff, it charges an ICB nonrecurring rate for installation of the collocator. BellSouth explains that this charge represents the one-time cost of equipment installation and is thus appropriately recovered through a nonrecurring rate. BellSouth Direct Case, Exhibit 5 at 3.

[35] ALTS Opposition at 26.

[36] TDL Opposition at 21.

9. Rebuttals. SWB states that its nonrecurring charges only recover the total installed cost up front and all recurring expenses such as maintenance are recovered through a monthly recurring charge.[37] SWB adds that imposing monthly recurring rates to recover the cost of what LECs are mandated to provide offers no assurance that such cost would ever be recovered because there is no guarantee as to the length of time that an interconnector will remain at a wire center.[38]

3. Charges for Additional, Extraordinary, or Individually Determined Costs

10. Direct Cases. Most LECs' tariffs contain provisions that allow them to recover from interconnectors' additional, extraordinary, or individually determined costs.[39] Ameritech states that in rare instances it should be permitted to recover unforeseen costs which have not been reflected in the central office build out charge for modifying a central office for physical collocation. Ameritech defines "extraordinary costs" as unforeseen costs not included in its average cost for central office modification directly related to a request for physical collocation (*e.g.*, asbestos removal).[40] CBT argues that a charge for additional or extraordinary costs is reasonable because such charges would be imposed when an interconnector requests or otherwise causes the activity leading to the extraordinary cost. CBT states that it would charge any construction necessary to provide interconnection service to an interconnector which requires service that is different from standard interconnection service.[41] GTE argues that it needs to recover costs associated with modifications beyond the initial building modifications to accommodate interconnectors or it will be unable to minimize GTE's shareholders' and ratepayers' exposure to valid expenditures not covered in the tariff.[42] US West asserts that although it removed a general provision allowing it to charge for extraordinary costs, including asbestos removal, it plans to amend its tariff when it identifies the situations that might result in such costs.[43] SNET states that it will provide features

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[37] SWB at 18.

[38] *Id.*

[39] *See, e.g.,* Ameritech Direct Case at 23; Bell Atlantic Direct Case, Attachment B at 36-37; CBT Direct Case at 3-4; GTE Direct Case at 35;

[40] Ameritech Direct Case at 23. *See also* Nevada Direct Case at 13 (requiring customers to assume the cost of modifications or upgrades necessitated by, *inter alia,* the Americans with Disabilities Act (ADA)); GTE Direct Case at 35 (stating that if multiple interconnectors' equipment require additions to the heating, ventilation and air conditioning system, these additional costs must be borne by the cost causers).

[41] CBT Direct Case, Appendix A at 3-4.

[42] GTE Direct Case at 35.

[43] US West Direct Case at 72-73.

beyond those specified in the tariff on an individual case basis (ICB).[44] CBT states that "Special Construction" denotes
construction necessary to provide services other than standard interconnection service.[45]

11. NYNEX states that its tariff does not contain provisions for extraordinary costs other than for the provisioning of microwave expanded interconnection.[46] According to NYNEX, microwave antenna support structures and associated transmitter and receivers space vary greatly depending on the customer's specific needs and therefore it must initially provide ICB service for such features.[47] SWB contends that it has traditionally been allowed to recover additional or extraordinary costs not covered by tariff rates and charges and it does not propose to treat interconnectors differently from its other customers in this regard.[48] Pacific contends that it has the right to recover the costs of compliance with governmental regulation associated with its provision of service to specific customers and, therefore, it should be able to recover extraordinary costs associated with modifications or upgrades to a central office due to physical collocation.[49] Bell Atlantic contends that exceptional circumstances are situations beyond those identified in the tariff that would inappropriately or unfairly result in an interconnector paying more for the collocation common space than a previous or subsequent interconnector.[50] Nevada Bell states that its tariff contains a provision for extraordinary costs incurred on behalf of the customer, such as any unusual and substantial costs associated with governmental authorizations.[51] Nevada Bell maintains that it does not include the costs of improvements and other modifications that it would have incurred even if the interconnector had not placed its facilities in the company's central office.[52] United contends that it is appropriate to charge an individual interconnector based on the actual costs of performing required work.[53] Lincoln and Rochester do not address this issue in their direct

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[44] SNET Direct Case at 11.

[45] CBT Direct Case, Appendix A at 3-4. *See also* SWB Direct Case at 28-29.

[46] NYNEX Direct Case, Appendix B at 7.

[47] *Id.*

[48] SWB Direct Case at 28.

[49] Pacific Direct Case at 58.

[50] Bell Atlantic Direct Case at 37.

[51] Nevada Direct Case at 12-13.

[52] *Id.*

[53] United Direct Case at 15.

cases.[54]

12. Oppositions. ALTS claims that Ameritech's extraordinary cost provisions would require interconnectors to submit a blank check for Ameritech to fill in.[55] MFS opposes extraordinary cost provisions,[56] and disagrees with the imposition of asbestos abatement charges upon interconnectors because LECs need to remove existing health hazards in central offices, regardless of whether physical collocation occurs.[57]

13. Rebuttals. Ameritech defends its extraordinary cost provisions, noting that interconnectors receive cost estimates in advance and sign a letter of election.[58] Pacific asserts that it is economically efficient to assess costs to their direct cause, rather than requiring customers of other services to cover these costs.[59] Bell Atlantic and United state that the remodeling needed to provide physical collocation would be, in most cases, the sole cause of disturbing asbestos and therefore requiring asbestos removal.[60] SWB states that its averaged construction costs reflect asbestos abatement work based on sample buildings used to develop costs.[61]

4. Advance Payment of Central Office Construction Charges

14. Direct Cases. Most LECs require advance payment of 50 percent of all construction charges.[62] Pacific, Nevada, and BellSouth require advance payment of 100 percent of the construction charges.[63] Bell Atlantic states that it requires 50 percent of the estimated construction charges in advance, with the remaining due after the construction is

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[54] In its direct case, BellSouth notes that its virtual expanded interconnection tariff contains a provision for extraordinary charges relating to equipment, installation, and training. BellSouth Direct Case, Exhibit 5 at 5.

[55] ALTS Opposition at 32-33.

[56] MFS Opposition at 32-33.

[57] *Id.* at 20.

[58] Ameritech Rebuttal at 10.

[59] Pacific Rebuttal at 43.

[60] Bell Atlantic Rebuttal, Attachment at 5; United Rebuttal at 6-7.

[61] SWB Rebuttal at 14.

[62] Bell Atlantic Direct Case at 32; GTE Direct Case at 31-33; SWB Direct Case at 25; NYNEX Direct Case, Appendix B at 5; US West Direct Case at 68-69.

[63] Pacific Direct Case at 55-56; Nevada Direct Case at 11-12; BellSouth Direct Case, Exhibit 5 at 3.

complete.[64] Bell Atlantic explains that this is a common real estate industry practice and limits Bell Atlantic's exposure if an interconnector withdraws its request for physical collocation before completion of the construction.[65] CBT and SNET state that the charges for design and construction are included in their application fees and vary depending on the amount of work required to process each interconnector's request.[66] CBT and SNET both contend that the charge is applied to the actual work performed with the remainder refunded to the interconnector if the interconnector decides not to collocate.[67] United contends that, although it does not require partial or total construction payment prior to commencement of construction, it believes that it is reasonable to expect a partial payment prior to commencement of work.[68] Lincoln states that requiring payment of nonrecurring charges before commencement of construction is reasonable because it ensures that the other customers of Lincoln do not finance or subsidize the construction of a competitor's facilities.[69] NYNEX states that if an interconnector withdraws a request for physical collocation, it will only be responsible for the nonrecurring costs incurred on its behalf.[70] Pacific argues that deferring payment is unnecessary because the interconnectors do not need additional assurances that LECs will complete construction work.[71] Ameritech and Rochester do not address this issue in their direct cases.

15. Oppositions. Sprint contends that an advance payment of 50 percent of the nonrecurring charges, with 50 percent due upon completion, is a reasonable requirement consistent with structured payments generally found in commercial construction contracts.[72] Sprint claims that full payment before the provision of service deprives interconnectors of leverage if work is not performed to their satisfaction, and is contrary to the LECs' access policies.[73]

16. Rebuttals. Pacific contends that its requirement for advance payment properly

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[64] Bell Atlantic Direct Case at 32.

[65] *Id.*

[66] CBT Direct Case, Exhibit A; SNET Direct Case at 6.

[67] *Id.*

[68] United Direct Case at 14.

[69] Lincoln Direct Case at 10.

[70] NYNEX Direct Case, Appendix B at 5-6.

[71] Pacific Direct case at 55-56.

[72] Sprint Opposition, Appendix A at 16.

[73] *Id.*

imposes the cost of financing construction on the interconnector and removes any risk of non-recovery due to default from its ratepayers and shareholders.[74]

5. Responsibility for Payment of Common Construction Costs

17. Direct Cases. Bell Atlantic, CBT, Pacific, and GTE charge the full amount of common costs to the first interconnector, with a pro rata refund to the first interconnector, if a subsequent interconnector takes service in the central office within a specific period.[75] GTE and Pacific impose a one year limit on the time for receiving refunds,[76] and limit the number of interconnectors eligible for refunds to three and four interconnectors, respectively.[77] CBT does not impose a time limit on refunds.[78]

18. Most of the other LECs estimate demand by interconnectors for central office space and average common costs among interconnectors.[79] Ameritech asserts that this approach assures the least amount of double recovery and avoids burdening the first interconnector with payment of the total cost.[80] BellSouth explains that because its space preparation charge is based on costs for one module, it does not segregate common costs or have a special mechanism for pro ration of such costs.[81] SWB contends that this methodology does not provide for refunds or increases if the forecasts are not realized.[82] Nevada does not include common costs in its nonrecurring charge because its offices have substantial vacant space.[83] Lincoln recovers common construction costs through the recurring floor space rate.[84] Lincoln states that this method ensures that interconnectors will share the cost evenly and in a

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[74] Pacific Rebuttal at 42-43.

[75] Bell Atlantic Direct Case, Attachment B at 31; CBT Direct Case, Appendix A at 3; Pacific Direct Case at 53-54; GTE Direct Case at 28-29.

[76] GTE Direct Case at 28-29; Pacific Direct Case at 53-54.

[77] Pacific Direct Case at 53-54.

[78] CBT Direct Case, Appendix A at 3.

[79] SWB Direct Case at 22-23; Ameritech Direct Case at 22; United Direct Case at 24; NYNEX Direct Case, Appendix B at 3; BellSouth Direct Case, Exhibit 5 at 3; SNET Direct Case at 8-10.

[80] Ameritech Direct Case at 21-22.

[81] BellSouth Direct Case, Exhibit 5 at 3.

[82] SWB Direct Case at 23.

[83] Nevada Direct Case at 11.

[84] Lincoln Direct Case at 10.

nondiscriminatory manner.[85] US West contends that the common construction costs are split between each group of three interconnectors that occupy the same central office location.[86] US West argues that it is both reasonable and practical to estimate and design the electrical feed to serve three interconnectors instead of one interconnector because of the construction savings realized by consolidating the electrical distribution for interconnectors within one central office location.[87] Rochester does not address this issue in its direct case.

19. Oppositions. MFS argues that Pacific's rate structure imposes all central office preparation costs on the first party to obtain physical collocation and thus constitutes a significant barrier to competitive entry.[88] MFS submits that Pacific should be required to reduce its central office preparation nonrecurring charges to reflect the demand estimate of four interconnectors per central office that Pacific used to develop its other charges.[89] MFS contends that the Commission should eliminate Pacific's 12-month restriction on refunds, claiming it will result in windfall earnings to Pacific whenever a party obtains physical collocation more than one year after the first arrangement is established.[90] ALTS argues that SWB's rate structure for common construction costs has an anti-competitive effect.[91]

20. Rebuttals. Pacific argues that there is a much greater risk of nonrecovery if nonrecurring charges are based on an inflated demand forecast.[92] Pacific defends its cessation of pro rata refunds after one year on the basis that after that period an interconnector will have received a significant return on its investment that outweighs the interconnector's need for a refund.[93] NYNEX claims that its estimate of common costs is reliable because it is based on actual experience with multiplexing nodes, and reflects the use of outside contractors selected by a competitive bidding process.[94]

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85 *Id.*

86 US West Direct Case at 68.

87 *Id.*

88 MFS Opposition at 19-20 & n.34.

89 *Id.* at 19-20.

90 *Id.*

91 ALTS Opposition at 31.

92 Pacific Rebuttal at 41 n.76.

93 *Id.* at 42.

94 NYNEX Rebuttal at 4.

6. Payment of Interconnector-Specific Charges by Subsequent Interconnector

21. Direct Cases. Only one LEC, BellSouth, states that, to avoid double recovery, interconnectors vacating the central office will be credited the unamortized amount of the space construction charge upon occupancy by another interconnector, and the subsequent interconnector would be responsible for paying the remaining unamortized amount of that charge.[95] Bell Atlantic states that upon termination of the physical collocation arrangement, it plans to restore the space to its original condition unless there is immediate or expected demand for that same space by another interconnector; if there is demand for the space, the original interconnector would not be billed for restoration costs and the subsequent interconnector would not be billed time and materials construction costs associated with the existing space.[96] CBT states that if the original interconnector leaves the cage in a condition acceptable to the subsequent interconnector, CBT would not assess cage construction charges on the subsequent interconnector.[97] Nevada and Pacific do not include the present discounted value of future maintenance expenses in its nonrecurring charge for expanded interconnection services.[98] Pacific argues that the probability of double recovery is slight and insufficient to justify the cost of developing an administrative scheme for addressing such a possibility.[99] Ameritech develops its central office build-out nonrecurring costs by averaging the cost of central office modifications over the expected number of 100 square foot transmission nodes within an office anticipated to be requested over a three year period.[100] Ameritech claims that this method assures the least amount of double recovery because it does not assess the entire build out cost to any single customer.[101] SWB contends that its rates are not interconnector-specific and it does not double recover its costs to prepare an office for collocation.[102] SWB explains that it utilizes the interconnector-provided forecasts submitted as a result of the *Special Access Expanded Interconnection Order* to determine the number of interconnectors likely to physically collocate in a given wire center.[103] SWB states that the total cost of preparing an office for collocation, based on size of central office, is divided by the forecasted

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[95] BellSouth Direct Case, Exhibit 5 at 3.

[96] Bell Atlantic Direct Case at 31.

[97] CBT Direct Case, Appendix A at 2.

[98] Nevada Direct Case at 11; Pacific Direct Case at 51-52.

[99] Pacific Direct Case at 51-52.

[100] Ameritech Direct Case at 21.

[101] *Id.*

[102] SWB Direct Case at 22-23.

[103] *Id.*

number to arrive at the rate per interconnector.[104] According to SWB, this method does not require a provision for a pro rata refund nor does it provide for retroactive tenant accommodation charge increases if forecasts are not realized.[105] Lincoln states that it would avoid double recovery by refunding any funds collected for which it did not incur cost.[106]

22. United contends that if an interconnector abandons its plans to collocate in a central office after construction has begun, the costs will either be absorbed by the LEC or passed through to other access customers.[107] United argues that passing costs through to other access customers is not an equitable solution unless the LEC has alternative uses for the construction.[108] US West imposes a one-time up-front construction charge and permits service on a month-to-month basis rather than for an extended period.[109] US West contends that it is unwilling to assume the risk that once the interconnector leaves, the space in question will not be desirable.[110] US West states that it has no chance of double recovering because none of its recurring rates are structured to recover enclosure construction costs.[111] GTE contends that if the central office has a vacated cage when an expanded interconnection service is requested, it will not impose the office arrangement charge if the cage size meets the requirements of the new interconnector.[112] GTE states that if the new interconnector requires additional cage construction or modification, the cost will be subject to ICB charges.[113] GTE notes that although its tariff does not presently address this issue, it will add tariff language so that the potential for double recovery of interconnector-specific construction is avoided.[114]

23. NYNEX states that if an interconnector vacates the facility, it may, with NYNEX's consent, assign its rights to that facility to another interconnector and, in such case,

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[104] *Id.*

[105] *Id.*

[106] Lincoln Direct Case at 9.

[107] United Direct Case at 14.

[108] *Id.*

[109] US West Direct Case at 66.

[110] *Id.*

[111] *Id.*

[112] GTE Direct Case at 27-28.

[113] *Id.*

[114] *Id.*

the second interconnector would not be assigned the construction nonrecurring charges.[115] However, if the first interconnector does not assign its rights to the second interconnector, the second interconnector will be assessed a full nonrecurring charge for construction.[116] NYNEX maintains that this approach avoids discrimination against interconnectors that do not place their orders immediately after the first interconnector, or that desire space in an office where a vacant cage is not available.[117] Nevada and Pacific contend that it is unlikely that an initial customer would terminate service and remove its equipment and that a subsequent customer would reuse exactly the same location.[118] Rochester and SNET do not address this issue in their direct cases.

24. Oppositions. PUCO opposes payment of full construction charges by subsequent interconnectors, who may move into a space with little or no construction expense.[119] With respect to LECs recovering recurring costs through nonrecurring construction charges, Sprint maintains that there will be double recovery if a second interconnector replaces the initial interconnector before the end of the number of years of recurring expenses included in the nonrecurring charge.[120]

7. Electric Power

25. Direct Cases. Bell Atlantic and BellSouth charge for 10 and 40 amp increments of direct current (DC) power, respectively, rather than on an actual usage basis.[121] Pacific charges for DC power in 40 amp increments, contending it is more efficient than providing power in smaller increments.[122] US West charges for electric power based on the number of amps requested by an interconnector, on a recurring basis, although the nonrecurring charge for power cable installation is billed at the 20, 40 or 60 amp capacity break point which is greater than or equal to the actual number of amps requested.[123]

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[115] NYNEX Direct Case, Appendix B at 2.

[116] *Id.*

[117] *Id.*, Appendix B at 2-3.

[118] Pacific Direct Case at 51-52; Nevada Direct Case at 11.

[119] PUCO Opposition at 9.

[120] Sprint Opposition, Appendix A at 7-9.

[121] Bell Atlantic Direct Case, Attachment B at 33 (10 amps); BellSouth Direct Case, Exhibit 5 at 4-5 (40 amps).

[122] Pacific Direct Case at 57.

[123] US West Direct Case at 70-71.

Ameritech and CBT charge for power on a per fuse amp basis.[124] GTE, United, and Central charge for DC power on a per square foot basis.[125] GTE assumes that an interconnector within a 100 square foot cage would require 100 amps of such power to operate equipment in computing its charge.[126] SWB charges for 40 or 100 amps of DC power.[127] NYNEX provides electrical power on an actual usage basis and bills the interconnector for that actual usage on a per amp basis.[128] Lincoln charges for power in 15 amp increments, while SNET and Nevada charge for power in 10 amp increments.[129] Rochester charges for DC power on a per kilowatt hour basis.[130]

26. Oppositions. ALTS and TDL contend that LECs should meter power usage to avoid overcharging interconnectors.[131] TDL claims that the interconnector can report the actual amount of power used by the equipment.[132] ALTS contends that the cost per fuse amp approach forces interconnectors to order more power than they expect to require at peak load, and then pay the LEC at that high level on a full time basis, resulting in significant excess costs.[133] ALTS maintains that SWB's minimum charge for power, based on 40 amps, unreasonably jumps to 100 amps as the next increment, which is unreasonable when other LECs offer increments of 10 amps or less.[134]

27. Rebuttals. US West contends that an interconnector is not overcharged when it pays a standard, tariffed rate for power.[135] Ameritech maintains that the cost of providing metered service would be prohibitive due to the additional cost of procurement and installation of individual meters, secondary power distribution management, periodic meter

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[124] Ameritech Direct Case at 22-23; CBT Direct Case, Appendix A at 3.

[125] GTE Direct Case at 33; United and Central Direct Case, TRP charts for DC power generation and DC power installation.

[126] GTE Direct Case at 33.

[127] SWB Direct Case at 26-28.

[128] NYNEX Direct Case, Appendix B at 6.

[129] SNET Direct Case at 11; Nevada Direct Case at 12; Lincoln Direct Case at 10.

[130] Rochester Direct Case at 4.

[131] ALTS Opposition at 29; TDL Opposition at 21-22.

[132] TDL Opposition at 21.

[133] ALTS Opposition at 28.

[134] *Id.* at 29.

[135] US West Rebuttal at 32.

readings, and the administration of billing.[136] Ameritech maintains that its cost per fuse amp approach is cost-effective and allows customers to determine energy usage costs up front based on the fuse size required for its individual equipment.[137]

B. DIRECT COSTS

1. Annual Cost Factors

a. Cost of Money

28. Direct Cases. CBT, GSTC, GTOC, Lincoln, Nevada, NYNEX, Pacific, Rochester, United and Central use a percentage cost of money equal to the Commission's authorized rate of return of 11.25 percent in developing their rates for physical collocation service.[138] Ameritech, Bell Atlantic, BellSouth, SWB, and US West use percentage costs of money equal to 10.9 percent, 12.8 percent to 13 percent, 13.34 percent, 12.32 percent, and 11.5 percent,[139] respectively, to calculate their rates.[140] SNET uses a percentage cost of money equal to 11.34 percent[141] to develop the rates set forth in its direct case. On November 12, 1993, SNET filed Transmittal No. 584 to revise its rates for physical collocation.[142] SNET's Transmittal No. 584 rates for physical collocation were developed based on a percentage cost of money equal to 10.33 percent.[143] LECs that use a rate other than 11.25 percent assert that their percentage cost of money represents a weighted average of their costs of debt and equity capital, where such weights are the proportions of debt and equity that comprise their capital structure.[144] Bell Atlantic, BellSouth, SWB, and US West argue that the percentage cost of

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[136] Ameritech Rebuttal at 4.

[137] *Id.*

[138] *See* CBT Rebuttal at 5; GTE Direct Case at 6; Lincoln Direct Case at 3; Nevada Direct Case at 2; NYNEX Direct Case at 10; Pacific Direct Case at 23; Rochester Transmittal No.183, Attachment at 1; United and Central Rebuttal at 11.

[139] US West uses a percentage cost of money equal to 10.29 percent as a discount rate to compute the present value of recurring costs for which a nonrecurring charge was developed. US West provides no explanation for the use of two different costs of capital.

[140] Ameritech Direct Case at 2; Bell Atlantic Direct Case at 6; BellSouth Direct Case at 7; SWB Direct Case, Appendix 2, Exhibit 1 at 2; US West Direct Case at 30.

[141] SNET Direct Case, Attachment 1.

[142] *Id.*

[143] SNET Transmittal No. 584, Description and Justification, filed November 12, 1993.

[144] *Id.*

money determined by such a methodology reflects the expectations of investors in financial markets and is the rate of return that they must earn in order to continue to attract financial capital.[145]

29. Ameritech, BellSouth, Pacific, and SWB point out that the percentage cost of money that they used in developing their rates differs from the annual cost of money factor displayed on the TRP charts because their methodologies differ from the formula specified in the *Special Access Physical Collocation Designation Order* for computing the factor on the charts.[146] BellSouth asserts that this difference arises because the factor on the charts reflects the effects of accelerated depreciation and the length of the planning period relative to a given investment.[147] Pacific argues that the annual cost of money factor set forth on each of its TRP charts is necessarily less than its percentage cost of money because the factor on the TRP charts represents the average cost of money as a percentage of gross investment over the life of the new plant item.[148] SWB explains that it developed a levelized cost of money factor which equals the net present value of the expected cost of money divided by the net plant in service for the account for which the factor is being developed.[149]

30. Oppositions. MCI states that there is no risk involved in provisioning expanded interconnection service because LECs have a monopoly over local switching and, therefore, a rate of return in excess of 11.25 percent is not justified.[150] MCI alleges that Bell Atlantic uses a cost of money ranging from 13.75 percent to 15.05 percent, CBT uses 13.4 percent and US West uses a range from 11.25 percent to 11.50 percent in developing their rates for expanded interconnection, and that these percentage rates are not justified.[151] MFS states that LECs' cost of money factors vary widely from LEC to LEC and service element to service element.[152] MFS points out that NYNEX and Pacific apply uniform cost of money factors of 1.7 percent and 6.28 percent, respectively, while Bell Atlantic applies a variety of

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[145] Bell Atlantic Direct Case at 7; BellSouth Direct Case at 14; SWB Direct Case, Appendix 2, Exhibit 1 at 2; US West Direct Case, Appendix C at 1-3.

[146] Ameritech Direct Case at 2; BellSouth Direct Case at 14; Pacific Direct Case at 23; SWB Direct Case at 2-3.

[147] BellSouth Direct Case at 14.

[148] Pacific Direct Case at 23.

[149] SWB Direct Case at 2-3.

[150] MCI Opposition at 9.

[151] *Id.* at 9-10.

[152] MFS Opposition at 2-3.

cost factors ranging from 12.09 percent to 15.05 percent.[153] Similarly, Teleport alleges that NYNEX uses a cost of money equal to 2.7 percent, Bell Atlantic uses 13.99 percent, SWB uses 10.89 percent, and Pacific uses 6.25 percent in computing DC power costs.[154] MFS concludes that the Commission should prescribe the established 11.25 percent rate of return as the maximum cost of money because no LEC provides evidence of its cost of equity in this proceeding.[155]

31. Rebuttals. Bell Atlantic and BellSouth argue that the percentage cost of money that they use in developing their direct costs represents a forward looking estimate of the rate of return expected by their investors and that they must provide these investors with a return at least as great as that expectation to ensure that they are able to continue to attract investors' capital.[156] Bell Atlantic also asserts that its cost of capital is between 12.8 percent and 13 percent and that confusion regarding that rate appears to be the result of the Bureau's methodology set forth in the TRP charts for calculating the cost of money.[157] US West states that its estimate of the future cost of capital is appropriate for setting rates for new services because it establishes prices for such services based on long run incremental cost.[158] CBT, GTE, Pacific, United and Central confirm that they use the Commission's authorized cost of money of 11.25 percent in developing their rates.[159]

b. CBT's Annual Cost Factors

32. Direct Case. CBT uses annual charge percentages to develop the depreciation expense, cost of money, federal income tax, property tax, maintenance expense, and administrative and other expense for each function on its TRP charts. In particular, CBT multiplies the annual charge percentages, which are the ratios of the expenses to investment, by an investment amount required for a particular physical collocation function to determine the annual recurring costs incurred in connection with that investment.[160] In addition, CBT uses land and building investment associated with central office equipment for the purpose of

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[153] *Id.* at 2-3.

[154] Teleport Opposition, Appendix A at 6.

[155] MFS Opposition at 4.

[156] Bell Atlantic Rebuttal at A-2; BellSouth Rebuttal at 6.

[157] Bell Atlantic Rebuttal at A-2.

[158] US West Rebuttal at 5-6 & n.14.

[159] CBT Rebuttal at 5; GTE Rebuttal at 3; Pacific Rebuttal at 10; United and Central Rebuttal at 11.

[160] CBT Direct Case, Exhibit A at 2.

establishing land and building factors for physical collocation.[161] CBT also uses central office common equipment investment to determine the central office equipment factors for physical collocation.[162]

c. GTE's Income Tax Calculations

33. Direct Case. GTE develops each of its recurring rates so as to recover an allowance for federal and state income taxes based on an after-tax 11.25 percent rate of return and the applicable composite federal and state income tax rate. More specifically, GTE computes the income tax allowance by calculating: (1) the annual dollar returns for each year of the revenue life of an investment by multiplying the after-tax 11.25 percent rate by the average annual undepreciated value of the investment; (2) multiplying the annual dollar returns by the applicable federal income tax factor to compute the allowance for federal income taxes for each year and then averaging these annual allowances, which yields the average annual allowance for federal taxes; and (3) multiplying the annual dollar returns by the applicable state income tax factor to compute the allowance for state income taxes for each year and then averaging these annual allowances, which yields the average annual allowance for state income taxes.[163] GTE's recurring rates recover the average annual federal taxes and the average annual state income taxes on a monthly basis.

d. US West's Recovery of Depreciation, Cost of Money, and Income Taxes

34. Direct Case. US West establishes several nonrecurring rate elements for the purpose of recovering depreciation, the cost of money, and income taxes for certain investments. These rate elements are those identified by US West in its TRP charts as: (1) "DS1 EICT" under the DS1 cross-connection provisioning function; (2) "DS3 EICT" under the DS3 cross-connection provisioning function; (3) "Quotation Preparation Fee" under the construction provisioning function; (4) "Inspector (During normal business hours)" under entrance facility installation; and (5) "Inspector (Out of normal business hours)" under entrance facility installation.

35. Opposition. Teleport claims that Pacific Bell's and US West's monthly rates for provisioning a single cross connect order, $179.20 and $487.00, respectively, include depreciation, cost of money, and taxes.[164] Teleport maintains, however, that there should be

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[161] CBT Direct Case, Exhibit A at 5.

[162] *Id.* at 4.

[163] GTE Transmittal No. 771 at A-3.

[164] Teleport Opposition, Appendix A at 5.

no investment for this nonrecurring charge.[165]

36. Rebuttals. US West states that there is no direct investment related to its nonrecurring DS1 cross connection rate, but that depreciation, cost of money, and tax expense are part of an administrative cost factor.[166] US West contends that such factor includes annual expenses or carrying charges associated with an allocation of investments that are related to the administrative expenses.[167]

e. Nevada's Depreciation Expense for Initial Capital Outlay

37. Direct Case. Nevada develops recurring rates and nonrecurring rates for several functions that recover the depreciation of the same initial capital outlay.[168] The depreciation for which a recurring rate is imposed is to recover the value of the initial capital outlay in equal monthly amounts over the estimated useful life of the investment.[169] The "depreciation" for which a nonrecurring rate is assessed is for the "cost of removal" and the "non-recoverable cost."[170] According to Nevada, the cost of removal represents the one time expense to remove the investment immediately after it has been installed[171] and the nonrecoverable cost represents the at-risk costs should the customer disconnect the service before Nevada has a chance to recover the cost through the recurring rate element.[172] The particular rate elements that Nevada establishes to recover depreciation on a recurring basis and on a nonrecurring basis (for the cost of removal and the non-recoverable cost) are identified in its TRP charts as: "EIS Channel Termination DS1," "EIS Channel Termination DS3," Interconnection Chamber - RENONV02, RENONV13, CRCYNV01, and SPRKNV11," "Power - Preferred DC," and "Conduit."[173]

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[165] *Id.*

[166] US West Opposition at 22.

[167] US West Opposition at 22.

[168] *See* Nevada's TRP Charts, Letter from Jo Ann Goddard, Director, Regulatory Relations, Pacific Telesis to Carol Canteen, Tariff Division, FCC (dated May 20, 1994).

[169] *Id.*

[170] Nevada Direct Case, Appendix C.

[171] *Id.*

[172] *Id.*

[173] *See* Nevada's TRP Charts, Letter from Jo Ann Goddard, Director, Regulatory Relations, Pacific Telesis to Carol Canteen, Tariff Division, FCC (dated May 20, 1994).